

Remarks

The Office action mailed November 26, 2004, has been reviewed and carefully considered. Claims 73 and 75 have been amended for purposes of clarification. New claims 96 and 97 have been added. Entry of these amendments is respectfully requested.

Claims 73-76, 78 and 79 have been rejected under 35 U.S.C. §103 over Edlund combined with Ding et al. Claim 77 has been rejected under 35 U.S.C. §103 over Edlund combined with Ding et al. and Fornof et al.

The examiner cites to column 5, lines 44-48, of Edlund as disclosing several varieties of fuel cells including molten carbonate fuel cells (MCFC) and solid oxide fuel cells (SOFC). However, a close inspection of this passage in the overall context of the Edlund patent reveals that MCFCs and SOFCs are not, in fact, contemplated by Edlund to be examples of the fuel cell included in the system disclosed by Edlund. In particular, Edlund at column 5, lines 59-63 states that "it is within the scope of the invention that fuel cell 30 (and stack 12) will be operated at a range of temperatures in the range of 0° C (or approximately 0° C) and 300° C (or approximately 300° C)." MCFCs and SOFCs, however, operate at significantly higher temperatures as noted by Edlund itself at column 5, lines 44-48 (450-550°C for MCFCs and 600-700 °C for SOFCs). The reference to MCFCs and SOFCs in Edlund is simply a statement that high-temperature fuel cells do exist, but are subject to certain shortcomings. Viewed in the proper context, the Edlund system includes low or moderate temperature fuel cells (see column 5, lines 16-20) but does not include or suggest high-temperature fuel cells such as MCFCs and SOFCs as recited in claim 73. Neither one of the secondary references even mention MCFCs or SOFCs. For this reason alone, the 35 U.S.C. §103 rejection of claims 73-79 should be withdrawn.

The Office action states on page 3, that "it would have been obvious to use the reforming adsorbing device of Ding et al. to supply hydrogen to the fuel cell of Edlund." The Ding et al. device is a one way, single step catalyst/adsorbent bed; it is not a pressure swing adsorption (PSA) device. Thus, substitution of the Ding et al. device for the PSA of Edlund would not have resulted in the system recited in claim 73. Moreover, there is no suggestion in either Edlund or Ding et al. that would have prompted one to substitute a one way, single step catalyst/adsorbent bed for the PSA of Edlund. For instance, there is no teaching of how the Edlund system could be

arranged to make use of the batch reforming reaction employed by Ding et al. The 35 U.S.C. §103 rejection of claims 73-79 also is untenable for these additional reasons.

With respect to new claims 96-98, it is noted that Edlund is relied upon by the examiner for disclosing a (PSA) device coupled to a fuel processor and a fuel cell. Edlund issued from Serial No. 09/872,743 which was filed on June 1, 2001, and claims the benefit of Provisional Application No. 60/208,880 filed on June 1, 2000. The present application claims priority to Canadian patent application 2,325,072, which was filed on October 30, 2000. Thus, only subject matter that was adequately disclosed in Edlund's '880 provisional application can qualify as prior art under §102(e) against the present application (see MPEP 2136.03 (III)). A review of Edlund's '880 provisional application (copy enclosed as Exhibit A) reveals that a PSA device is never even mentioned. Thus, the June 1, 2001, filing date of the '743 nonprovisional application is the first mention of a PSA device.


In contrast, a review of the Canadian priority application reveals that claims 96-98 are fully supported and entitled to the October 30, 2000 priority date which is earlier than the June 1, 2001, initial disclosure by Edlund of a PSA. In particular, claims 96 and 98 find support in the Canadian priority application, for example, at page 6, line 21 – page 7, line 18. Claim 97 finds support, for example, at page 6, lines 27-29. Accordingly, Edlund cannot properly be relied upon as a reference against new claims 96-98.

It is respectfully submitted that the present claims are in condition for allowance. Should there be any questions regarding this application, Examiner Kalafut is invited to contact the undersigned attorney at the telephone number shown below.

Respectfully submitted,

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